Met Office

September 2011

The averaging period used for the following assessment was 1981-2010.

UK overview

A changeable 'westerly' weather type prevailed for most of the month with showers or longer spells of rain, especially in the north-west. There were also some strong winds at times. The last week saw a fine, very warm spell with some exceptionally high temperatures for the time of year.

The mean temperature was 1.1 °C above the 1981-2010 average and it was the warmest September since 2006 and the equal-sixth warmest in the last 100 years. Most of England saw below average rainfall, with much of the Midlands, East Anglia, Kent and other eastern areas recording less than half the normal amount. This was the seventh consecutive dry month in the Midlands. In contrast, the western Highlands of Scotland and parts of north-west England recorded over 150% of average. Sunshine amounts varied from somewhat below normal over western Scotland and Northern Ireland to above normal in East Anglia.

A maximum temperature of 29.2 °C was recorded at Cambridge and Sutton Bonington (Nottinghamshire) on the 30th. A minimum temperature of -0.4 °C was recorded at Tyndrum (Stirling) early on the 15th. In the 24 hours ending at 0900 on the 6th, 135.6 mm of rainfall was recorded at Black Sail, Ennerdale, Cumbria. A wind gust of 87 mph was recorded at Needles Old Battery (Isle of Wight) on the 6th.

Weather Impacts

The first Atlantic depression of the autumn brought strong winds to all areas on the 6th and some localised transport disruption, with ferry cancellations and road bridge restrictions. On the 12th, a further deep Atlantic depression - the remnants of hurricane Katia - brought very strong winds to northern England, north Wales, southern Scotland and Northern Ireland. In these areas, trees were brought down, there was disruption to road, rail and sea transport and power cuts. The strong winds also combined with high tides to result in large waves battering some west-facing coasts.

In the last few days, most of the country enjoyed sunny, very warm conditions, resulting from high pressure over continental Europe and a southerly air flow. It was particularly warm over England and Wales, with temperatures widely in excess of 25 °C each day from the 28th. At month-end, temperatures peaked around 29 °C, making it the warmest end to September for over 100 years. This late season heat-wave gave a welcome boost to leisure and tourism.

England diary of highlights

A changeable 'westerly' weather type prevailed for most of the month, bringing rain and some strong winds at times. The last week saw a fine, very warm spell with some unusually high temperatures.

The mean temperature was 1.3 °C above the 1981-2010 average, making it the warmest September since 2006 and the fifth warmest in the last 100 years. Rainfall amounts were generally below normal, with most of the Midlands, East Anglia, Kent and other eastern areas recording less than half the normal amount and a few places less than a third. The wettest areas were in the north-west, with over 150% of normal. Sunshine amounts were somewhat above normal in the eastern half, especially in East Anglia, but it was duller towards the west.

1st to 4th:

The month started on a settled note, with some cool nights but warm sunshine developing in many areas by day. During 2nd and 3rd temperatures became very warm inland in southern and eastern areas with maxima around 25 °C in East Anglia and the south-east each day. However, mist and fog also became rather more widespread, persisting all day towards some southern and western coasts. The night of 3rd / 4th, saw thunderstorms move up from France, with rain clipping the far east of Kent. On 4th, outbreaks of rain in western areas extended slowly eastwards with brighter conditions following, before further rain reached the west later.

5th to 11th:

An unsettled week with showers or bands of rain spreading across all parts at times with occasionally strong winds. On 5th heavy showers and thunderstorms gave some locally torrential downpours. The 6th was very wet and windy with gales in many places and winds gusting as high as 87mph on the Isle of Wight. The week then became drier and brighter with some sunshine developing, especially in the east. It again became very warm and humid with high overnight minima. A maximum temperature of 24.8 °C was recorded at Wainfleet (Lincolnshire) on 9th and 25.0 °C at Leconfield (East Yorkshire) and Weybourne (Norfolk) on 10th. The weekend of 10th/11th saw a mixture of sunshine and showers before persistent and, at times, heavy rain spread to the north.

12th to 18th:

Staying unsettled at first, with a very windy day on 12th, especially in the north. By 14th a ridge of high pressure started to build bringing quieter conditions. Showers became well scattered with longer drier and sunny spells developing. A cold start to 15th, with temperatures around or below 5 °C in many inland areas and 0.8 °C at Redesdale Camp (Northumberland). Patchy mist and fog also formed overnight, slow to clear during the day. By the end of the week it turned unsettled again with heavy, thundery rain in northern and western areas on 16th, although south-eastern parts stayed drier and warm with a maximum temperature of 23.1 °C at Kew Gardens (Greater London). The 17th and 18th were unsettled with strong winds and showers or spells of rain at times and scattered thunderstorms.

19th to 26th:

A drier and less windy start on 19th, but quickly turning more unsettled once again with rain for many on 20th. The 21st was very windy but drier and brighter after early rain cleared the south-east. Pressure began building by 23rd with only isolated showers, and 24th / 25th were mainly dry and warm, especially in the east, with a good deal of sunshine. Overnight into 26th saw a brief windier spell with some rain, but this cleared by morning to leave a dry, bright day.

27th to 30th:

High pressure over the continent and southerly winds brought a fine, very warm spell with temperatures rising day by day. After some stubborn cloud and fog towards some south-western coasts on 27th, the final days saw almost unbroken sunshine in most places. A few mist and fog patches developed overnight, especially across the south-west, but these cleared by mid-morning. It became exceptionally warm for the time of year with very warm conditions developing inland during the afternoons. The 29th and 30th saw temperatures exceed the previous records for these individual dates, with 28.8 °C recorded at Kew Gardens on 29th and 29.2 °C at Cambridge and Sutton Bonington (Nottinghamshire) on 30th.

Wales diary of highlights

A changeable 'westerly' weather type prevailed for most of the month, bringing rain and some strong winds at times. The last few days saw a fine, very warm spell with some unusually high temperatures. The mean

temperature was 1.0 °C above the 1981-2010 average, making it the warmest September since 2006. Rainfall amounts were generally close to or slightly above average, but it was drier than normal towards the English border. Sunshine amounts were mostly also close to average, although somewhat below in the west.

1st to 2nd:

After a cool start inland on 1st, with a minimum of 3.5 °C at Sennybridge (Powys), and mist and fog patches, there were some good sunny spells. The 2nd started dry and bright with hazy sunshine (also some mist and fog in places), but otherwise it remained sunny and warm. Daytime temperatures reached 22 °C in the east.

3rd to 11th:

On 3rd a slow-moving band of rain lay across the north and west, turning heavy and persistent on hills. The 4th started mostly cloudy and damp with occasional outbreaks of rain, but these cleared leaving bright or sunny spells for a time. A narrow band of quite heavy rain and strong south-westerly winds then followed during the late afternoon. Sunshine and showers at first on 5th, then rain spread from the south-west during the afternoon, turning heavy and persistent over hills; 80 mm of rain fell over Snowdonia in the 24 hours to 0900 on 6th. A wet morning was followed by showers on 6th. Rather cloudy on 7th with frequent showers, with rain becoming moderate or heavy on high ground later in the afternoon. Cloudy again on 8th, with some light rain over western hills. The 9th was rather cloudy and a small area of thundery showers spread into the south of the country for a time. After a mild start to 10th, with night minimum temperature of 17.8 °C at Trawsgoed (Ceredigion), it remained cloudy and quite damp at first, but then brighter with sunshine and a few scattered showers. On 11th, eastern areas had some good spells of sunshine for a time, but then a few scattered showers spread north-eastwards.

12th:

A day of strong winds, especially in the north, where Capel Curig (Conwy) recorded wind gusts of 82 mph and Lake Vyrnwy 76 mph Early outbreaks of rain cleared to leave some sunshine, and above average temperatures.

13th to 25th:

After a bright start on 13th, a line of heavy showers moved eastwards across south Wales through the morning, but it finished dry and clear. Cloud and showery rain spread southwards to north Wales during 14th, the south staying mostly fine and dry. Most areas stayed dry overnight with light winds and clear spells, followed by a dry and bright day on 15th with sunny spells and light south-easterly winds. On 16th, rain fell throughout the day, light initially, becoming showery with some longer periods of rain on western hills later. The 17th saw some sunshine but heavy showers, some thundery, developed during the afternoon and became quite widespread. On 18th, showery rain soon cleared to leave a brighter afternoon with some sunshine. The 19th was cloudy with light rain throughout. On 20th, it was cloudy with rain, heavy at times, also quite windy. Some early sunshine on 21st and 22nd, but then scattered showers developed, mainly in the north and west. The 23rd stayed fine and dry with sunny spells. The 24th stayed cloudy, with outbreaks of rain in the north-west spreading southwards to affect most parts. The 25th was warm and sunny for much of the day, but cloud and rain spread to north Wales later, Capel Curig recording 23.4 mm of rainfall by 0900 on 26th.

26th to 30th:

Dry and sunny by day, but some early mist and fog, and with exceptionally high temperatures recorded. Maxima exceeded 24 °C widely each day from 28th to 30th, with 26.4 °C at Prestatyn (Denbighshire) on 28th, 26.1 °C at Hawarden (Flintshire) and Cardiff on 29th and 27.5 °C at Colwyn Bay (Conwy) on 30th.

Scotland diary of highlights

A generally unsettled month with some heavy rain and strong winds at times, before becoming fine and very warm in the last few days. The mean temperature was 1.0 °C above the 1981-2010 average. Rainfall amounts were above average in the west, with over 150% of the normal amount in the western Highlands. Elsewhere totals were generally close to normal, but it was relatively dry in Shetland. Sunshine amounts were somewhat below average, especially in the west.

1st to 11th :

Bands of rain spread eastwards on 1st, 2nd and 3rd, with some dry, bright but rather cloudy interludes. The 4th was bright with scattered showers before rain spread from the south-west later and overnight, clearing to showers during 5th. Another spell of rain crossed from the south-west in the evening and overnight clearing to blustery showers on 6th and 7th, accompanied by strong to gale force winds. The 8th saw fewer showers and more sunshine, especially in the east, with the temperature at Inverbervie (Aberdeenshire) reaching 18.5 °C. Rain moved northwards on 9th then the south became bright and warm, with Machrihanish (Argyll and Bute) reaching 20.9 °C. Rather cloudy on 10th with showers or longer spells of rain, but becoming drier later and warm, with Charterhall (Borders) reaching 22.3 °C. The 11th was bright with showers.

12th to 22nd:

Widespread severe gales on 12th brought gusts over 70 mph to the Central Belt. Rain was heavy at times with over 25 mm recorded in 24 hours from 0900 over much of the western Highlands and 76.8 mm at Tyndrum (Stirling). Further gales in the south on 13th before they eased, and a rain band moved southwards. Outbreaks of rain in the north on 14th with some strong winds, gusting to 59 mph at Rosehearty (Aberdeenshire), but dry and bright in the south. A dry day on 15th with sunny spells after a chilly start, with Tyndrum falling to -0.4 °C. The 16th was mostly cloudy with outbreaks of rain, the best of any drier and brighter conditions being across the north-west. Some dry, bright weather on 17th but showers developed in many places, heavy at times and slow moving with isolated thunderstorms. Thundery showers in the north-east at first on 18th,; drier and brighter elsewhere, with 19.5 °C at Brodick Castle, Isle of Arran. Patchy rain in the west early on 19th, with heavier rain over the south later, otherwise mainly dry and bright. Sunny spells on 20th but some sharp showers, mostly in the north-west. Heavy rain spread south-eastwards through the morning of 21st with sunny spells and showers, some thundery, following by mid-afternoon. Very wet in the north-west Highlands, with nearly 70 mm recorded at Cluanie Inn (Highland) by midnight, and windy with gales in places. Bright with further showers on 22nd with more general rain developing overnight, heaviest in the west with another 39 mm falling at Cluanie Inn.

23rd to 30th:

The 23rd saw outbreaks of rain, most persistent in the west with bright or sunny spells in the east, and a maximum of 19.7 °C at Lossiemouth (Moray). Patchy, mainly light, rain overnight soon cleared on 24th to leave sunny spells and a few showers, more especially across the north-west. Rain or showers in the west on 25th after a dry start. The east was mostly dry with some sunshine, before outbreaks of rain later. Occasional showers in the north and west on 26th, but mainly dry elsewhere with sunny or clear spells. Brighter on 27th in the south and east, with Lossiemouth reaching 21.6 °C. Bright and sunny on 28th and exceptionally warm, with maxima around 23 to 24 °C widely. A very mild night followed with Altnaharra (Highland) falling no lower than 17.4 °C. Cloud and patchy rain spread eastwards on 29th, though it died out and parts of the north and east stayed bright and very warm. The 30th was again very warm in central and eastern areas, with temperatures here rising to around 22 °C and reaching 26.7 °C at Floors Castle (Borders). Meanwhile, rain spread into many western areas.

Northern Ireland diary of highlights

The month saw a mainly changeable 'westerly' weather type, with plenty of showers or longer spells of rain. There was a brief warm, settled spell in the last week. The mean temperature was 0.7 °C above the 1981-

2010 average. Rainfall amounts were somewhat above average, by about 25% typically. It was a rather dull month, with about 80% of the normal sunshine.

1st to 16th:

The 1st was dry and bright and 2nd started bright before cloud and rain spread from the south-west. Rain on 3rd cleared later. Rain spread eastwards on 4th followed by showers and 5th saw further showers then rain. The 6th was showery and windy with coastal gales. Another breezy day on 7th with patchy rain or showers. Some rain early and late on 8th but bright for most of the day, with Helens Bay (County Down) reaching 19.5 °C. Warmer still on 9th, with Derrylin (County Fermanagh) reaching 22.3 °C. Some bright spells on 10th with scattered mostly light showers and warm with Magilligan (County Londonderry) reaching 21.3 °C. Bright with showers on 11th with more general rain during the late evening. Cloudy on 12th with outbreaks of rain and gale force winds. A fairly cloudy day on 13th with outbreaks of rain. Showers cleared early on 14th then the rest of the day and 15th were bright. Rain on 16th cleared to bright showery weather.

17th to 26th:

The 17th was a mainly cloudy day with frequent showers, some heavy. The 18th had fewer showers and more sunshine. The 19th saw rain early and late, but bright weather in between lifted the temperature to 20.4 °C at Killowen (County Down). Bright and breezy with some showers in the north on 20th. A dry start to 21st in the east but rain, heavy at times, spread eastwards before it brightened later. Another bright start on 22nd, but rain spread north-eastwards through the afternoon. The 23rd was rather cloudy with outbreaks of rain. Mainly dry with clear or sunny spells on 24th. Rain spread eastwards on 25th before brightening again later. Much of 26th was dry with sunshine, before it clouded over with some light rain.

27th to 30th:

Cloud broke up on 27th with sunshine lifting temperatures to 20.8 °C at Ballykelly (County Londonderry). Early cloud on 28th broke to leave a sunny, warm day, the temperature reaching 20 to 22 °C generally and 23.5 °C at Ballykelly. The 29th was cloudier, but mainly dry and it brightened especially in the north; Magilligan (County Londonderry) was the warmest place, with 21.5 °C. The 30th turned cloudy with rain, becoming heavy, with over 20 mm recorded across Down and Armagh in 24 hours from 0900 and 31.4 mm at Glenanne (County Armagh).

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Met Office